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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/734,353

12/12/2003

Lawrence W. Hu

GUID-011CON2

3571

36154

7590

03/04/2009

LAW OFFICE OF ALAN W. CANNON
942 MESA OAK COURT
SUNNYVALE, CA 94086

EXAMINER

MAI, HAO D

ART UNIT

PAPER NUMBER

3732

MAIL DATE

DELIVERY MODE

03/04/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/734,353	Applicant(s) HU ET AL.	
	Examiner HAO D. MAI	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-10,12,13,15,16 and 84-108 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-10,12,13,15,16 and 84-108 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-2, 5-10, 12-13, 15-16, and 101-108 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2, 5-10, 12-13, and 15-16, of U.S. Patent No. 6,685,632 B1 in view of Dobrovolny (5,899,627).

The Patent '632 claims do not include the first articulating joint providing three degrees of freedom. However, it is well known in the connector or joint field to utilize a ball and socket joint in order to obtain more degrees of freedom. For example, Dobrovolny discloses an articulating joint of ball 19 providing at least 3 degrees of freedom. It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the first articulating joint with a ball and socket joint as a mere substitution of alternative suitable joint. Furthermore, the subject matter claimed in the instant application is fully disclosed in the patent and is covered, i.e. claimed, by the patent since the patent and the application are claiming common subject matter. It is the applicant's burden to establish that the invention of the instant claims is independent and distinct from the invention claimed in the patent.

3. **Claims 84-100 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 5 of U.S. Patent No. 6,685,632 in view of Hancock (6,331,157 B2).** The Patent '632 claims do not include a retractor with a drive mechanism driving the retractor blades. Hancock shows a retractor system comprising a drive mechanism 22 and first and second retractor blades 24, 26 being drivable or spreaded apart by the drive mechanism 22 (Fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the Patent claims with the retractor shown by Hancock as an alternate stable support for the instrument mount and stabilizer.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1-2, 13, and 16, are rejected under 35 U.S.C. 102(e) as being anticipated by Dobrovolny (5,899,627).**

Dobrovolny discloses an instrument mount apparatus capable of position a surgical instrument, the mount apparatus comprising: a mount body 12 having a base portion (i.e. arm 14) moveably coupled at a first articulating joint (ball 19) providing at least three degrees of freedom of movement (Fig. 1); and a side portion 22 movable coupled at a second articulating

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joint 80 (Fig. 2). There is a single actuator 100 operatively connect to the first and second articulating joints (Fig. 2). The two joints are freely moveable when the single actuator 100 is in an unlocked portion; and the two joints are compressed each into a substantially immovable condition when the actuator 100 is placed in a locked position (column 4 lines 48-52). Also note that the two articulating joints 19 and 80 are at an angle relative to each other.

As to claims 2, 13, and 16, the angle between the two joints are shown to be less than 120 degrees, ; the first articulating joint 19 is a ball and socket joint; and the second articulating joint 80 is a rotational joint (Fig. 2).

6. Claims 84-89, 92-94, and 97-106 are rejected under 35 U.S.C. 102(e) as being anticipated by Cartier (6,102,854).

Regarding claims 101-106, Cartier et al. disclose an instrument mount apparatus (Figs. 3 and 5A-5B) comprising: a grip member 50 capable of being locked to and released from a stable support/rail 40 via flange 521; a first joint member 53 capable of allowing movement, in an unlocked configuration, of an upper portion 55 of said grip member 50 relative to a lower portion 52 of said grip member, said lower portion capable of being locked and released from said stable support/rail 40; a second joint member (ball 54/56) capable of movably connecting a surgical instrument 60 to the grip member 50; and a locking mechanism via single actuator 51 which can both lock the grip member 50 to the stable support/rail 40 and lock an orientation of the surgical instrument 60 (Figs. 3, 5A-5B; column 9 lines 14-57; column 10 lines 60-67). The stable support or rail 40 is disclosed to be a retractor (Fig. 2). The grip member 50 is attached to and slidable with respect to the stable support/rail 40. The joint member of ball 54/56 and socket 524 is a rotational ball joint. The surgical instrument of rod 60 and its components is a stabilizer being linked to the joint member.

Regarding claims 84-89, 92-94, and 97-100, Cartier discloses a surgical system 1 comprising: a retractor including a drive mechanism 2, two retractor blades 7 being drivable by the drive mechanism 2; and an instrument mount assembly 50 slidably mounted on one of the blades along the rail 40 (Figs. 1A and 2). The instrument mount assembly 50 is capable of receiving and fixing a surgical instrument 60 in multiple locked, unlocked, or partially-locked configurations with respect to itself. The instrument mount assembly 50 is also capable of fixing itself in multiple locked, unlocked, or partially-locked configurations with respect to the retractor (Fig. 1). Cartier et al. further disclose a single actuator 51 which is also a quick-release mechanism which can lock and unlock two joints included in the instrument mount assembly as detailed above with respect to claim 101.

Also note the stabilizer 30 mounted to the retractor via instrument mount assembly 50 (Fig. 2). The instrument mount assembly 50 can be fixed to said retractor while the surgical instrument 60 or 30 can be positioned with respect to said instrument mount assembly. The surgical instrument may still be moved under frictional resistance when in a partially-locked configuration.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 1, 5, 7, and 15, are rejected under 35 U.S.C. 102(e) as being anticipated by Dobrovolny (5,899,627).**

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Regarding claim 1 and 15, Dobrovolny discloses the invention substantially as claimed as detailed above. Alternatively, member 22 can be the base portion coupled at first articulating joint 80; and member 14 can be the side portion coupled at second articulating joint 19. However, Dobrovolny then fails to disclose the first articulating providing three degrees of movement. Nonetheless, it is well known to utilize a ball and socket joint in order to obtain more degrees of freedom. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Dobrovolny by substituting the first articulating joint 80 with a ball joint in order to obtain more degrees of freedom.

As to claim 5, Dobrovolny further discloses the actuator 100 comprising a base post 92 assembled through said base portion 22 and mount body 12; and interconnected at a first end (96) to a cam 94 operatively interfacing a contact surface on said mount body; and a tie pin 108 received in a slotted portion 98 of base post 90. Thus Dobrovolny fails to disclose a tie pin having a slotted portion for receiving the base post. Nonetheless, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Dobrovolny by making a slotted portion in the tie pin 108 to receive base post 90, since it has been held that a mere reversal of essential working parts of a device involves only routine skill in the art. In re *Einstein*, 8 USPQ 167.

As to claim 7, the second articulating joint 19 is a rotational joint including a frustoconical member 52 extending from said side portion and a cooperating frustoconical cavity 32 within said mount body 12 (Fig. 2).

9. Claims 107 and 108 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cartier (6,102,854) in view of Benetti et al. (2001/0044572).

Cartier et al. disclose the invention substantially as claimed according to claims 101-106. However, Cartier et al. fail to disclose the stabilizer comprising a plurality of interconnecting links articulating with the joint member and the stabilizer.

Benetti et al. show a stabilizer system comprising an instrument mount, a stabilizer where the mount and the stabilizer are connected by a plurality of interconnecting links (Fig. 6). A cable runs through the links and when a tension is applied thereto, the links are fixed. It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the rod of Cartier, with the flexible system of Benetti to enable the surgeon to place the stabilizer in many more orientations.

10. Claims 95-96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cartier (6,102,854) in view of Hancock (6,331,157 B2).

Cartier et al. disclose the invention substantially as claimed in claims 84. However, Cartier et al. are silent to the open slots on the retractor blade for receiving and securing sutures therein.

Hancock discloses a retractor having suturing slots 66 on the retractor blade (Fig. 11). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cartier et al. by including the suturing slots in order to receive and secure sutures therein.

Allowable Subject Matter

11. Claims 6-10 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Also note that double patenting rejection(s) need to be overcome before allowance.

Response to Arguments

12. Applicant's arguments filed on 07/11/2008 have been fully considered but are moot in view of new ground(s) of rejection. Applicant's remarks are held to be responded to in the above ground(s) of rejection.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAO D. MAI whose telephone number is (571)270-3002. The examiner can normally be reached on Monday-Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached at (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hao D Mai/
Examiner, Art Unit 3732

/Cris L. Rodriguez/
Supervisory Patent Examiner, Art Unit 3732